



## RAIN BIRD LXME2 Controller User Guide

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Tech Spec  
User Guide



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## LXME2 Controller

The popular Rain Bird LXME Series commercial controllers have been enhanced providing up to 40 programs, a simplified user interface, additional connectivity options, and a 2nd booster pump circuit or NCMV. The LXME2 Controller provides flow sensing and management with modular station capacity from 12 to 48 stations. Station modules are available in 12-station models.

## Applications

The LXME2 provides flexible features and modular options making it ideal for traditionally wired retrofit applications and new installs.

Modular options include modular station capacity, flow sensing, metal case and pedestal and NCC Network Control Communication Cartridges. These options are field installed and can upgrade and enhance the LXME2 at any time in the future.

### Retrofit Applications

Previous generation LXME controllers can be upgraded with LXME2 hardware.

Cabinet – LXME era cabinets (chassis) are compatible with LXME2 hardware and do not need to be upgraded.

Faceplate – LXME faceplate can be swapped with an LXME2 faceplate (LXME2FP).

12 Station Modules (ESP-LXM-SM12) – Existing wiring to 12 station modules can remain unchanged.

4 & 8 Station Modules – Not supported (replace with ESP-LXM-SM12).

Base Module (BM2-LXME) – Is compatible with the LXME2.

Flow Smart Module (FSM-LXME) – Not supported (replace with: PSM-LXME2).

Flow Smart IQ Connection Module (IQ-FSCMLXME) – Not supported (replace with: IQ-PSCMLXM).

6 Pin Remotes – Not compatible with LXME2

## Controller Hardware

- Plastic, locking, UV resistant, wall-mount case
- Optional painted steel and stainless steel cases and pedestals
- 12-station base unit expandable to 48 stations with 12-Station Modules
- Pro Smart Module™ factory installed or field upgradeable

## Controller Features

- Large backlit LCD display with easy to navigate softkey user interface
- Hot-swappable modules, no need to power down the controller to add/remove modules
- MV1 – Normally closed or Normally open Master valve/pump start circuit
- Master valve delay and inter-station delay

- 6 user-selectable languages
- Non-Volatile (100- year) program memory
- Standard 10kV surge protection
- Front panel is removable and programmable under battery power

## **Water Management Features**

- FloManager™ manages hydraulic demand, making full use of available water to shorten total watering time
- SimulStations™ are programmable to allow up to 5 stations to operate at the same time
- Water Windows by program plus Manual MV Water Window
- Cycle+Soak™ by station
- Rain Delay
- 365-Day Calendar Day Off
- Programmable Station Delay by program
- Weather Sensor programmable by station to prevent or pause watering
- Program or Global Monthly Seasonal Adjust

## **PRO Models only**

- PRO features can be accessed by installing the LXME2 PRO Controller or by replacing the LXME2 base module with a PRO Smart Module (PSM-LXME2)
- FloWatch™ protection for high and low flow conditions with user defined reactions
- Flow sensing capability (1 input)
- Learn Flow – Automatically Learn Flow rates based on real-time usage
- Flow Usage Totalizer
- MV2/P – Additional 2nd booster pump start circuit or normally closed master valve programmable by station

## **Diagnostic Features**

- Alarm light with external case lens
- External alarm port (0.1A max)
- Program summary and review
- RASTER™ station wiring test

## **Operating Specifications**

- Station run timing: up to 96 hrs continuous runtime
- Seasonal Adjust: 0% to 300% (16 hrs maximum station run time)
- 40 independent programs (programs can overlap)
- 10 start times per program
- Program Day Cycles include: custom days of the week, odd, odd no 31st, even, and cyclical dates
- Manual station start, manual program start, test all Stations

## Electrical Specifications

- Input required: 120 VAC  $\pm$  10%, 60Hz; 230 VAC +10% -6%, 50 Hz.
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the schedule
- Multi-valve capacity: Maximum five 24 VAC, 7 VA solenoid valves simultaneous operation including the master valve, maximum two solenoid valves per station module

## Certifications

120VAC models: UL, FCC, ISED

230VAC models: CE, UKCA, ACMA RCM

## Dimensions

- Width: 14.32 in. (36,4 cm)
- Height: 12.69 in. (32,2 cm)
- Depth: 5.50 in. (14,0 cm)

## Environmental

Operating temperature range: 14°F to 149°F (-10°C to 65°C)

Operating humidity range: 95% max at 40°F to 120°F (4°C to 49°C) in a non-condensing environment

Storage temperature range: -40°F to 150°F (-40°C to 66°C)

## LXME2 Models

ESPLXME2 – Controller DOM 120V

ESPLXME2P – Pro Controller DOM 120V **PRO**

IESPLXME2 – Controller International 230V

IESPLXME2P – Pro Controller International 230V **PRO**

ILXME2AU – Controller Australia 230V

ILXME2PAU – Pro Controller Australia 230V **PRO**

LXME2FP – Spare Panel

PSMLXME2 – Pro Smart Module **PRO**

IQPSCMLXM – Pro Smart IQ Connection module **PRO**

## Specifications

The controller shall be housed in a wallmountable, weather-resistant plastic cabinet with a key-locking cabinet door suitable for either indoor or outdoor installation.

The controller shall have the ability to be programmed and operated in any one of six languages: English, Spanish, French, German, Italian, & Portuguese.

The display shall show programming options and operating instructions in the chosen language without altering the programming or operation information.

The controller shall have a base station capacity of 12 stations as well as 3 expansion slots capable of receiving station modules of 12 stations to create a controller capacity of up to 48 stations. All stations shall have the capability of independently obeying or ignoring the weather sensor as well as using or not using the master valve. Station timing shall be from 0 minutes to 96 hours. The controller shall have a Seasonal Adjustment by program which adjusts the station run time from 0 to 300% in 1% increments. The controller shall also have a Monthly Seasonal Adjustment of 0 to 300% by month. Station timing with Seasonal Adjustment shall be from 1 second to

96 hours.

The controller shall have 40 separate and independent programs which can have different start times, start day cycles, and station run times. Each program shall have up to 10

start times per day for a total of 400 possible start times per day. The 40 programs shall be allowed to overlap operation based on user defined settings which control the number of simultaneous stations per program and total for the controller. The controller shall allow up to 5 valves to operate simultaneously per program and total for the controller including the master valve/pump start circuit. The controller shall have an electronic, diagnostic circuit breaker that shall sense a station with an electrical overload or short circuit and shall bypass that station and continue to operate all other stations.

The controller shall have a 365-day calendar with Permanent Day Off feature that allows a day(s) of the week to be turned off on any user selected program day cycle. (Custom, Even, Odd, Odd31, & Cyclical). Days set to Permanent Day Off shall override the normal repeating schedule and not water on the specified day(s) of the week. The controller shall also have a Calendar Day Off feature allowing the user to select up to 5 dates up to 365-days in the future when the controller shall not start programs.

The controller shall incorporate a Rain Delay feature allowing the user to set the number of days the controller should remain off before automatically returning to the auto mode.

The controller shall have Cycle+Soak water management software which is capable of operating each station for a maximum cycle time and a minimum soak time to reduce water run-off. The maximum cycle time shall not be extended by Seasonal Adjustment.

The controller shall incorporate a FloManager feature providing real-time flow, power, and station management. FloManager shall manage the number of stations operating at any point in time based on water source capacity, station flow rate, number of valves per station; userdefined simultaneous stations per program and for the controller.

FloManager shall incorporate the ability to provide station priorities to determine the order in which stations shall operate.

The controller shall ignore the station number and instead operate the highest priority stations first and the lower priority stations last when FloManager is enabled.

FloManager shall be an option that is disabled by default and the controller shall operate zones in order of station number, started with the lowest numbered zone set to irrigate and ending with the highest number zone.

The controller shall offer Water Windows for each program. This function sets the allowed start and stop time where watering is allowed.

If the watering cannot be completed by the time the Water Window closes, the stations with remaining run time are paused and watering automatically resumes when the Water Window opens the next time.

The controller shall offer a Pro Smart Module option which adds flow sensing functionality and second master valve/ booster pump functionality. The Pro Smart Module sensor input shall accept a direct input from a flow sensor with no flow scaling device required.

Module features shall include a FloWatch Learn Flow Utility which learns the normal flow rate of each station. Each time the station runs FloWatch compares the current real-time flow rate to the learned rate and takes user defined actions if high flow, low flow, or no flow is detected. FloWatch shall automatically determine the location of the flow problem and isolate the problem by turning off the affected station or master valve. FloWatch shall be compatible with both normally closed and open master valves. A Manual Master Valve Water Windows shall be provided to coordinate day time manual watering with the flow sensing.

This Water Windows shall offer programmable days of the week and manual watering additional flow rate.

The controller shall have an alarm indicator light on the front panel visible through the outer door with the door closed and locked. The alarm light shall prompt the user to select the alarm softkey to review the alarm condition(s). A port for an external alarm is also available.

The controller shall be compatible with the IQ4™ Platform utilizing NCC Network Communication Cartridges. The NCC Cartridge shall provide communication with the IQ Central Computer and other controllers via a variety of communication options. The IQ Platform shall provide remote computer control of the controller providing automatic or manual program adjustments.

The controller shall offer an optional metal cabinet and pedestal.

LXMM: Metal Cabinet for ESP-LX Series Controllers\*

LXMPED: Metal Pedestal for ESP-LX Series Controllers\*

LXMMSS: Stainless Steel Metal Wall Mount

Enclosure for ESP-LX Series Controllers

LXMMSSPED: Stainless Steel Metal Pedestal for ESP-LX Series Controllers

\* Note: Metal cabinets and pedestals are not standard on ESP-LX Series controllers and must be purchased separately. LXMPED requires LXMM, and LXMMSSPED requires LXMMSS. The controller shall be as manufactured by Rain Bird Corporation.

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### Documents / Resources

	<a href="#">RAIN BIRD LXME2 Controller</a> [pdf] User Guide LXME2 Controller, LXME2, Controller
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### References

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